

## **REMARKS/ARGUMENTS**

Claims 1-41 and 74-83 are pending in this application.

### **DOUBLE PATENTING**

A terminal disclaimer to US patent application no. 10/635,918 is included herewith to obviate the double patenting rejection of claim 74.

### **CLAIM REJECTIONS UNDER 35 USC 102**

With regard to claims 31-34 and 36-41, claim 31 has been amended and is now allowable over Silverbrook (US Pub. No. 2004/0032526) because Silverbrook does not disclose all of the elements of amended claim 31. Specifically, Silverbrook does not disclose analyzing meta-data information including image acquisition device-specific information including a spectral response curve of a sensor of an acquisition device with which the image was acquired. The Examiner is respectfully requested to reconsider this rejection in view of the following remarks.

Paragraph [0026] of Silverbrook refers to “the spectral nature of the flashlight”. It is respectfully submitted the “spectral nature of the flashlight” is an entirely different thing from a spectral response curve of a light sensor. Whatever light may be incident upon the subject of a photo may affect how the color of the subject appears to the camera. The color of the light being captured by a sensor of an image acquisition device may be interpreted by the camera as differing from what that light actually includes, due to the spectral response curve of the sensor, unless that spectral response curve of the sensor is taken into consideration.

As an example, an identical light source, e.g., ambient light, may illuminate an identical scene in pictures taken with two different digital cameras. Those cameras would have different camera sensors which may in turn have different spectral response curves. That is, like the human eye, they gather light of different wavelengths with different sensitivity. The human eye, for example, is very sensitive to red, green, yellow and blue light, but is almost entirely insensitive to infrared and ultraviolet light. The human eye is also more sensitive to green and yellow light than it is to red and blue or violet light, especially far red and deep blue and violet light. That is, the human eye sees a certain intensity of yellow light as brighter than a same intensity of violet light. The same is true for the sensors of digital cameras, and different sensors have different spectral response curves. The result is that the pictures taken with the two cameras of the same scene with the same illumination light will differ as to color due to their having different spectral response curves.

Like different spectral response curves of different light sensors, two different “flashlights” will have two different “spectral natures” or will consist of different combinations of spectral components. Certainly, a blue light and a red light have different spectral natures, and even two white lights can consist of different spectral components. Also certainly but differently, an object illuminated only by infrared light is invisible to a visible light sensor like a bare human eye, but is easily viewable with the assistance of infrared sensing night vision goggles, which have a different spectral response curve than the human eye, i.e., they are sensitive to infrared wavelengths. The colors in a digital picture are the result of the combination of the spectral nature of the flashlight or other illuminating light, the spectral response curve of the camera sensor, and of course also of the light absorption and reflection properties of objects in the scene. The point is that the spectral response curve of a sensor, as required in Applicants’ claims 31-34 and

36-41, is physically different than and separate from the spectral nature of flashlight as disclosed by Silverbrook at paragraph [0026].

Thus, the advantageous feature recited at Applicants' claim 31 is nowhere disclosed by Silverbrook, including paragraph [0026] which only refers to the spectral nature of flashlight rather than a spectral response curve of a sensor. Claims 32-34 and 36-41 are allowable as being dependent upon amended claim 31.

#### CLAIM REJECTIONS UNDER 35 USC 103

With regard to claims 1-30, claim 1 has been amended and is now allowable over the combination of Matama (USP 7,042,501) and Velasquez (US Pub. No. 2003/0161506), because no combination of Matama and Velasquez teaches or suggests all of the elements of amended claim 1. Specifically, neither Matama nor Velasquez teaches or suggests to analyze meta-data information including aperture, f-stop, color transformation, nor CCD size for determining whether a region is suspected to have red-eye artifact. Claims 2-30 are allowable as being dependent from amended claim 1.

In addition, with specific regard to claim 23, it is submitted that Velasquez et al. do not disclose to use aperture as meta-data, and instead only discloses to use meta-data to calculate aperture.

Also, with specific regard to claim 28, it is submitted the Velasquez et al. also do not disclose to use sensor size as meta-data. Velasquez et al. discuss sensor resolution and face size, but sensor resolution and sensor size are two different things, and Velasquez et al. nowhere discloses to use sensor size as meta-data.

It is respectfully submitted that Matama is not prior art to claims 74-76, 78-80 and 82, as now amended. Each of claims 74-75, 78 and 80-82, as amended, is supported by priority US patent no. 6,407,777, which was filed October 9, 1997 before the earliest effective US filing date of Matama. Claims 74-75 find support in the '777 patent at Figures 8 and 9 and col. 4, line 57-col. 5, line 51. Claim 76 also finds support in the '777 patent at Figures 8 and 9 and col. 4, line 57-col. 5, line 51. Claim 78 finds support in the '777 patent at Figure 1 and col. 2, lines 21-60. Claim 79 finds support in the '777 patent at col. 2, lines 55-60. Claim 80 finds support at Figure 9 and col. 5, lines 40-51. Claim 82 finds support at Figure 1 and col. 2, lines 54-55. Therefore, each of 74-76, 78-80 and 82 is now allowable, because Matama is not prior art to any of these claims.

With regard to claim 77, it is respectfully submitted that Velasquez does not teach nor suggest at paragraph [0041] to obtain *anthropometrical information of human faces* and to use this anthropometrical information in a red eye artifact determination. Velasquez only discloses not to look for red eye artifact where a face is not detected, while there is no indication that anthropometrical information is included in that analysis. Therefore, claim 77 is allowable over Matama et al. in view of Velasquez.

Claims 81 and 83, as now amended, require that determining whether regions are actual red eye artifact is performed within a digital camera as a probability determination process based upon a plurality of criteria. This feature is not taught nor suggested by Matama et al. at column 13, lines 15-31, as indicated by the Examiner. Matama et al. only states a fact regarding the red eye phenomenon, that the red eye effect is liable to arise when a camera is a compact camera with particular other criteria. Matama et al. do not teach or suggest performing a probability determination within a digital camera to

determine whether regions are red eye artifact. Therefore, claims 81 and 83 are allowable over Matama et al. in view of Velasquez.

Claim 35 is allowable as being based upon amended claim 31, for the reasons set forth above, and because no combination of Silverbrook and Matama et al. teaches or suggests the limitations of amended claim 31.

In view of the above, it is respectfully submitted that the application is now in condition for allowance. The Examiner's reconsideration and further examination are respectfully requested.

Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-4399.

Respectfully submitted,

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